Public Health Surveillance During a Large Multi-site Catastrophic Event

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DSI

Epi Process for Any Event

- Distribute information/respond to inquiries
  - Info developed based on data + scientific knowledge
  - Disseminated to providers and public
- Measure magnitude of problem
- Help confirm dx – specimens to DCLS
- Recommend prevention measures
  - Hospital, home, environment
- Identify exposure and monitor the exposed

Different Actions for Chemicals

- Less likely to go to scene of event
- Less concern about 2° spread
  - Assuming exposed have been decontaminated
- PPE concerns more outside hospital than inside
- Response follows exposure more closely due to short latency period
- Possibility of monitoring for long-term health effects

Response Differs by Scale

Tens of cases

Hundreds of cases

Thousands of cases

- Individual case reports

- Extensive interviews with cases and contacts

- Epi study to find source

- Tracking of indiv.

- Confirm each dx.

- Less info collected/case

- Report numbers

- Less tracking of individuals

- Use epi-linking to assume dx

- Report numbers, rapid means, less QC

- No tracking of individuals

- Focus on control and public information

Types of Numbers Possibly Expected of Public Health – Mass Event

- Exposed
  - On-site
  - Surrounding area
- Decontaminated
- Treated
- Transported
- ED visits
- Admissions
- Deaths

- Dispensing sites:
  - Number receiving prophylaxis
  - Number developing illness
  - Number experiencing side effects

Sources of Data

- EMS data – Reported to local EOC by scene incident commander (IC)
  - Number at the site = number decontaminated
  - Number transported and/or treated
- OCME data – Reported by OCME to IC
  - Number dead at the site (those at initial location plus those dying after decon)
  - Number who died after moving (transport, ED)

Sources of Data, continued

- Hospital data
  - Number of ED visits (transported and walk-in)
  - Number of admissions
- EMS and Hospital
  - Types of illnesses seen
- Health Hazards and VDEM
  - Exposed in surrounding areas

Denominators

- Open environment
  - Examples: shopping malls, public events
  - Challenge – estimating # present, # who left, risk to contacts of those who left, etc.
- Closed environment
  - Examples schools, contained populations
  - Easier to identify population at risk

Ways to Collect Data

- EOC connections
  – EMS seat and HD seat trade information
- Hospitals – they report at set times or HD collects information at facility
- District OCME offices
- Reporting numbers vs individual case reports -- changes with time or scope

Proposed Information Stream

- Local EOC or hospital to LHD;

- LHD to central office (CO);

- CO compiles and reports out to regions and districts. Date and time stamp on all.

- Ideal would be on web or shared drive.

Advance Planning:

- For VDH district/region/state and partners
- With hospitals, EMS, OCME –
  – data needed for public health,
  – practicality of request from their view,
  – best mechanism for relaying the information,
  – frequency of reporting
- Frequency range: hourly to daily
  – (neither extreme recommended)

Discussion

- Planning that has occurred in districts
- Ideas and recommendations for how to make surveillance work best during large-scale event
- How best to report and communicate internally
- What districts need from the regional and state offices

Resources for Chemical Events

- Purpose: to help us assess risk and develop prevention messages
- Chemical Event Reference Guide – on EP&R web site
- USAMRIID, Jane's, CDC
- Poison Control Centers - fact sheets
- Division of Health Hazards Control in Office of Epidemiology